

WHAT IS CLAIMED IS:

1                   1.       In a small, motor-driven vehicle having:  
2                   at least one steered wheel;  
3                   a motor for driving the small, motor-driven vehicle;  
4                   at least one motor-driven wheel;  
5                   a platform supporting the rider from the at least one driven wheel wherein the  
6 rider supported on the platform directs the steered wheel while applying power from the  
7 motor through a throttle mechanism to the driven wheel; and,  
8                   a throttle mechanism for applying power from the motor to the driven wheel;  
9                   the improvement of a throttle mechanism comprising:  
10                  a driven shaft from the motor contacting the periphery of the driven wheel;  
11                  means for providing the driven shaft with an adjustable diameter between a  
12 small diameter and a larger diameter when driving the driven wheel whereby,  
13                  when the driven shaft is adjusted to have a small diameter, the small motor  
14 driven vehicle is propelled at low speed and high torque, and  
15                  when the driven shaft is adjusted to have a large diameter, the small motor  
16 driven vehicle is propelled at higher speed and lower torque.

1                   2.       The small, motor-driven vehicle according to claim 1 and wherein:  
2                   the small, motor-driven vehicle is a scooter.

1                   3.       The small, motor-driven vehicle according to claim 1 and wherein:  
2                   the means for providing the driven shaft with an adjustable diameter includes  
3 two opposed parts for moving toward and away from one another.

1                   4.       The small, motor-driven vehicle according to claim 3 and wherein:  
2                   the two opposed parts produce a larger diameter when moved toward one  
3 another and produce a smaller diameter when moved away from one another.

1                   5.       The small, motor-driven vehicle according to claim 1 and wherein:  
2                   the driven shaft is inflatable to provide a variable diameter.

1                   6.       The small, motor-driven vehicle according to claim 5 and wherein:  
2                   the driven shaft when inflated provides a larger diameter; and,  
3                   the driven shaft when deflated provides a smaller diameter.

1                   7.       In a small, motor-driven vehicle having:  
2                   at least one steered wheel;  
3                   a motor for driving the small, motor-driven vehicle;  
4                   at least one motor-driven wheel;  
5                   a platform supporting the rider from the at least one driven wheel wherein the  
6 rider supported on the platform directs the steered wheel while applying power from the  
7 motor through a throttle mechanism to the driven wheel; and  
8                   a throttle mechanism for applying power from the motor to the driven wheel;  
9                   a process of driving the driven wheel through the throttle mechanism  
10 comprises the steps of:  
11                   providing a driven shaft from the motor for contacting the periphery of the  
12 driven wheel;  
13                   providing the driven shaft with an adjustable diameter between a small  
14 diameter and a larger diameter when driving the driven wheel;  
15                   adjusting the driven shaft to have a small diameter to propel the driven wheel  
16 at low speed and high torque; and,  
17                   adjusting the driven shaft to have a larger diameter to propel the driven wheel  
18 at high speed and low torque.

1                   8.       The process of driving the driven wheel through the throttle  
2 mechanism of claim 7 and further including:  
3                   mounting the driven shaft on a pivot relative to the driven wheel; and,  
4                   pivoting the driven shaft toward and away from the wheel to apply power to  
5 the driven wheel.

1                   9.       The process of driving the driven wheel through the throttle  
2 mechanism of claim 7 and wherein the providing of the driven shaft with an adjustable  
3 diameter includes the steps of:  
4                   providing the driven shaft with interlocking parts moving toward and away  
5 from one another to provide a first shaft diameter in a first toward-and-away position and to  
6 provide a second shaft diameter in a second toward-and-away position; and,  
7                   moving the interlocking parts of the driven shaft to vary the torque and speed  
8 of the driven wheel.

1                    10.     The process of driving the driven wheel through the throttle  
2 mechanism of claim 9 and wherein:  
3                    moving the interlocking parts of the driven shaft away from one another to  
4 provide high torque and low speed to the driven wheel.

1                    11.     The process of driving the driven wheel through the throttle  
2 mechanism of claim 7 and wherein the step of providing the driven shaft with an adjustable  
3 diameter includes:  
4                    providing the driven shaft with an inflatable diameter;  
5                    inflating the driven shaft to provide the driven wheel with high speed and low  
6 torque; and  
7                    deflating the driven shaft to provide the driven wheel with low speed and high  
8 torque.